

# Meteorite gouged huge Greenland crater 58 million years ago

An immense crater in northwestern Greenland, buried under a thick sheet of ice and first spotted in 2015, is much older than previously suspected - formed by a meteorite impact 58 million years ago, rather than 13,000 years ago as had been proposed.

Scientists said they used two different dating methods on sand and rock left over from the impact to determine when the crater - about 19 miles (31 km) wide - was formed. They found that the meteorite - roughly one to 1.25 miles (1.5-2 km) in diameter - struck Greenland about 8 million years after a larger asteroid impact at Mexico's Yucatan Peninsula wiped out the dinosaurs.



#### This Month's Roundup of Stories

- Greenland Meteorite
- Secretary's Report
- Alien Minerals in Meteorite
- Star Rocks
- Cabachon Class
- How Diamonds Reach Surface
- Tourmaline
- Bench Tips

The crater lies beneath Greenland's Hiawatha Glacier, covered by an ice sheet six tenths of a mile (1 km) deep. It had remained undetected until airborne ice-penetrating radar data tipped off scientists about its existence.

It is one of Earth's 25 largest-known impact craters. Over the eons, Earth has been hit by space rocks innumerable times, though gradual changes in the planet's surface have erased or obscured many of the craters.

Greenland at the time - during the Paleocene Epoch - was not the icy place it is today, and instead was covered with temperate rain forests populated by a variety of trees and inhabited by some of the mammals that became Earth's dominant land animals after the dinosaurs - aside from their bird descendants - went extinct.

The meteorite released millions of times more energy than an atomic bomb, leaving a crater big enough to swallow the city of Washington.

Read the entire article at Reuters.com

Clubhouse Address: 3357 Susan Dr. Spring Hill, FL 34606

# Secretary's Report

Minutes and More from Club Secretary - Melodye Steverson

Withlacoochee Rockhounds Monthly Meeting Meeting Minutes Date 7-12-23

The meeting was called to order by President Judith Birx at 7:20pm.

We all stood for the Pledge of Allegiance followed by a moment of silence.

There were no new members to recognize.

There were 4 guests in attendance: Denise & Marty Dolback, Pat from New Port Richey and Dandren,

a friend of member Anthony Maffatone.

Janet Wheeler made a motion to accept the minutes of our June meeting as printed in the newsletter,

Roberta Oldread seconded. Passed by all members.

Treasurer Janet Wheeler gave the Treasurer's report. Roberta Oldread made a motion to accept the

Treasurer's report subject to audit. Seconded by Leslie Newberry. Approved by all.

President Birx began by announcing that we are still waiting for a response from the CPA we engaged to handle the club's problem with reinstating our 501-C3 status. She said we will continue to pursue the resolution of our situation.

VP Janice Wojcik announced that she and Pam Gonzales will be teaching more silver smithing classes very soon. Janice will teach beginner smithing and Pam will teach an intermediate class. Members can always sign up for classes at our monthly meetings.

Leslie Newberry stood and announced that she will be presenting a program on Meteorites at our next monthly meeting in August. Leslie assured us that it will be both educational and entertaining.

VP Janice Wojcik updated members on the status of the Gem Show vendor applications and advertising flyers. She said the vendor applications had been sent and she has printed more of the flyers that she designed to promote our Annual Gem Show.

Also, she said that club members that want to be vendors

Also, she said that club members that want to be vendors at our show must apply for their space before August 30th . After that time, all tables will go to outside vendors.

Roberta Oldread made a motion to adjourn the meeting, Janice Wojcik seconded, passed by all.

Meeting was adjourned at 7:42pm.

Minutes respectfully submitted by Secretary Melodye Steverson.

Withlacoochee Rockhounds Board of Directors Meeting Minutes Date 7/19/23

Attending Board members; Judith Birx, Melodye Steverson, Janet Wheeler, Roger Wheeler, Roberta Oldread, Michael Steverson and Leslie Newberry.

Board meeting started at 6.44pm and was held via the Internet on Zoom.

President Birx began by speaking of our ongoing struggle to have the club's 501-C3 non-profit status reinstated. She heard from Amy who works for the CPA.

Amy said they had tried to fix the problem without having to reinstate us and that failed. Amy said the EIN number on SunBiz is not the same as the EIN number the IRS has for us. President Birx told her to proceed with the reinstatement process.

After much discussion, we decided to give the CPA office more time to see what they could find out. Judith will check on them periodically to determine their progress.

President Birx stated that we should allot money to buy tools for Pam Gonzales to use for her silversmithing classes. Melodye Steverson made a motion to cover the cost for tools for Pam's class, up to \$300. Seconded by Leslie Newberry. Approved.

There was a discussion regarding the storage of the club's TV in the storage room.

President Birx will talk to The President of the WWSCC and report her findings.

President Birx remarked about member Lex Kolias having lots of equipment with which to identify gems and minerals. It was suggested that our Program Director should approach him about doing a program wherein he offers to ID gems and minerals for club members.

Club webmaster Michael Steverson suggested that we live stream our monthly meetings. This was discussed and Michael will do some research on it and report at the next Board meeting.

The meeting ended at 7:21pm.

Minutes respectfully submitted by Secretary Melodye Steverson

# Two Alien Minerals Unknown to Earth Found in Meteorite

Geologists have discovered two alien minerals unknown to Earth in a meteorite in Somalia. A small, 2.5 ounce (70-gram) fragment of the fifteen thousand kilogram fallen comet known as El Ali revealed the alien ore.

Scientists stumbled upon the unknown mineral in the meteorite while sampling a slice. It was only after analyzing the segment in a lab that they realized they had discovered something completely new.

Researchers, scientists, and geologists are excited by the revelation, as it might help them understand more about asteroids and how they form as well as the possibility of locating more.

Live Science magazine reports the curator and professor in the Department of Earth & Atmospheric Sciences at the University of Alberta Chris Herd as having stated: Whenever you find a new mineral, it means that the actual geological conditions, the chemistry of the rock, was different than what's been found before. That's what makes this exciting: In this particular meteorite you have two officially described minerals that are new to science.

Herd named one of the alien deposits 'elalite' after the El Ali meteorite. The other he termed 'elkinstantonite' after Professor Lindy Elkins-Tanto, the vice president of the Interplanetary Initiative at Arizona State University. Elkins-Tanton is also the chief investigator of what they call the 'Psyche' mission, part of the NASA operation to reach the Asteroid Psyche 16 by 2023.

The El Ali meteorite is composed of more than three hundred unfamiliar IAB elements and iron. Nevertheless, the discovery of something non-native to Earth came as a surprise to all. This is something that Herd's colleague, Dr. Andrew Locock, affirmed. "The very first day he did some analysis he said 'You've got at least two new minerals here," Locock said.

Herd called upon his colleague, Locock, to study the segments they found. Locock is an expert in identifying formerly unknown minerals and possesses a wealth of knowledge on how asteroids form.

Read the entire article at GreekReporter.com



Withlacoochee Rockhounds
Board Member Leslie Newberry
will present an Introduction
to Meteorites and Space Rocks.
Learn the differences between
meteorites, tectites and meteors.
Leslie has an extensive collection of
Space Rocks and everybody at the
meeting will get a meteorite sample!
Be there on August 9th and
May the force be with you.



# Mystery of how diamonds reach the Earth's surface finally solved

Diamonds form under great pressures in the depths of the Earth and are hundreds, or even billions of years old. They are usually found in types of volcanic rocks called kimberlites. These are located in the oldest, strongest, and thickest parts of the continents, such as in South Africa, where the well-known diamond rush of the 19th century occurred.

However, how diamonds reach the Earth's surface has largely remained a mystery until recently.

Now, a team of researchers led by the University of Southampton and the University of Birmingham has found that the breakup of tectonic plates is the main driving force behind the generation and ultimate eruption of diamond-rich magmas from deep inside the Earth.

"We found that a domino effect can explain how continental breakup leads to formation of kimberlite magma. During rifting, a small patch of the continental root is disrupted and sinks into the mantle below, triggering a chain of similar flow patterns beneath the nearby continent," explained co-author Stephen Jones, an associate professor of Earth Systems at Birmingham.

These findings prompted the scientists to examine what geological processes may drive this pattern. They discovered that the Earth's mantle – the convecting layer between the planet's crust and core – is often disrupted by rifting, or stretching, of the crust.

This phenomenon occurs even thousands of kilometers away. The result leads to a domino effect which can help explain how continental breakup causes the formation of kimberlite magma. "The pattern of diamond eruptions is cyclical, mimicking the rhythm of the supercontinents, which assemble and break up in a repeated pattern over time. But previously we didn't know what process causes diamonds to suddenly erupt, having spent millions - or billions of years stashed away 150 kilometers beneath the Earth's surface," said lead author Tom Gernon, an associate professor of Earth Science at Southampton.

These findings could be used to identify the locations and timings of past volcanic eruptions linked to these processes, providing important insights that could enable the future discovery of additional diamond deposits.

Read the entire article at <u>Earth.com</u>



## Cabochon Classes!

The "Summer of '23 Cabochon Classes" are up and running! Although there was a rough start, things have been going great! I have had outstanding students and they are turning out amazing Cabs! We're in the second round of classes now and will have a sign-up sheet at the August meeting for the third round. I've included some pictures below to show off my students and their creations! Maybe it will inspire you to sign up for a class and join us! Melodye



# Field Trips

"Note: The Withlacoochee Rockhounds Club does not sponsor field trips other than trips that are sanctioned by the SFMS (The Southeast Federation of Mineralogical Societies).

Our club insurance is through SFMS and does not cover excursions not listed on their website as safe."

# The Most Expensive Ruby in the World

A 55-carat ruby is now the most expensive colored gemstone ever sold at auction.

The Estrela de Fura is a 55.22-carat cushion-cut ruby that was discovered in 2022 in Mozambique. It is the largest gem-quality ruby ever discovered and is also one of the most expensive rubies ever sold. The Estrela de Fura was cut from a 101-carat rough ruby that was discovered by miners at the Fura Gems mine in Montepuez, Mozambique. The rough stone was immediately recognized as a special gem, and it was sent to the Gübelin Gem Lab in Switzerland for grading. The Gübelin Lab awarded the stone a flawless grade for clarity and a vivid red color, which is known as "pigeon's blood."

The Estrela de Fura was unveiled to the public in September 2022 at a gala event in Dubai. The stone was immediately met with rave reviews from gem experts and collectors alike. The Estrela de Fura was then put up for auction at Sotheby's Magnificent Jewels sale in New York.

The Estrela de Fura quickly became the star of the auction. It was expected to sell for at least \$20 million, but it ultimately fetched a record-breaking price of \$34.8 million. The buyer of the Estrela de Fura was a private collector from the Middle East.

The sale of the Estrela de Fura is a major milestone for the ruby industry. It is the first time that a ruby has ever sold for more than \$30 million. The sale also highlights the growing importance of Mozambique as a source of top-quality rubies.

Although record gemstone sales are dominated by diamonds — colored ones, in particular — rubies are also considered among the world's rarest and most valuable gemstones. The previous auction record for a ruby was set by the Sunrise Ruby, a 25.59-carat stone found in Myanmar that fetched \$30.3 million in Geneva, Switzerland, in 2015.

Here are some additional facts about the Estrela de Fura ruby:

- The name "Estrela de Fura" means "Star of Fura" in Portuguese.
- The ruby was cut by the renowned Gemological Institute of America (GIA).
- The ruby is certified as Type IIa, which is the highest grade of clarity for a ruby.
- The ruby is a vivid red color, known as "pigeon's blood."
- The ruby was sold at auction for a record-breaking price of \$34.8 million.

Read the entire article at GeologyIn.com



# **Tourmaline**

Tourmaline is a generic term that encompasses a group of minerals that is a favorite among mineral collectors and commonly used as a gemstone.

Tourmaline gets its name from the Sri Lankan words tur mali which means stone of many colors. Ancient Egyptians believed tourmaline grabbed all the colors of the rainbow as it worked its way up through the earth. One reason for tourmaline's popularity is its wide array of colors – over 100! The mineral colors are caused by traces of different chemicals. For example, iron produces blue (indicolite) and green colors and manganese produces pink and red colors. Sometimes tourmaline colors are enhanced by heat treatment.

Tourmaline may form beautiful, elongated crystal clusters that are highly sought after by collectors. It is one of the most prized minerals and stunning specimens can be among the most aesthetic examples in the mineral kingdom.

Read the entire article at RockNGem.com





#### Your Business Card Size Ad in Rock Talk

The cost for non-club members to advertise their businesses in Rock Talk is \$10.00 per month.

Contact Michael Steverson to set up an ad in both the newsletter and the club website. It will benefit both your business and our club.

#### Advertisers Needed

Please help us find advertisers for the Rock Talk and our website. The club can use the monthly income. Both the Rock Talk and our website have more exposure than only club members

Contact club treasure Janet Wheeler: coccord/dampabay.r.com or send to: Withtis occhee Rockhounds PO Box 5634 Spring Hill, FL 54811-5634

#### Withlacoochee Rockhounds

#### Purpose

We are a non-profit organization whose pupose is to foster interest and promote knowledge of minerals, gems, fossils, lapidary arts, and earth sciences, through regular meetings, informative programs, workshops, and field trips. PLUS, our annual gem, mineral and jewelry show.

Membership is open to anyone sharing such interests.

#### Dues

Dues are \$35.00 annually for adults, and \$5.00 for children under 18 years of age.

#### Club Meeting Location and time

Weeki Wachee Senior Citizens Center, 3357 Susan Dr in Spring Hill. The meetings are held the second Wednesday of the month at 7:00PM

#### 2023 Club Officers and Appointees

President **Judith Birx** 352.587.1702 judithbirx@hotmail.com Jfwojcik@verizon.net Janice Wojcik 813.677.6263 Vice President Secretary Melodye Steverson 352,683,9496 melodye@designsbymelodye.com Treasurer Janet Wheeler 727.938.3644 ceegirl@tampabay.rr.com Rock Talk Editor Michael Steverson 407.376.5570 highlander56@gmail.com Club Webmaster Michael Steverson 407.376.5570 highlander56@gmail.com ceegirl@tampabay.rr.com Janet Wheeler 727.938.3644 Mailing Reporter Gem Bag Coordinator Gloria DuPont 352,848,5199 ddupont@tampabay.rr.com Audio/Visual Coordinator Michael Steverson 407.376.5570 highlander56@gmail.com

#### **Board of Directors**

Judith Birx (President) Janice Wojcik (Vice President) Melodye Steverson (Secretary) Janet Wheeler (Treasurer)
Roberta Oldread Leslie Newberry Roger Wheeler Michael Steverson Ralph Barber (Past President)



# Bench Tips from Brad Smith

#### Brad Smith's Bench Tips are a monthly feature of Rock Talk

#### **PRE-MADE BEZEL CUPS**

As a general rule of thumb I assume it's going to take me 15 - 20 minutes to make a bezel for an ordinary cabochon, so for some projects buying pre-made cups can save a lot of time. But if you go this route, keep in mind three things.

First, try to get cups made from fine silver, not sterling. Fine silver is softer and burnishes over the stone more easily.

Second, you may have trouble matching the shape and size of the stone with the shape and size of the bezel cup. Purchased cups can only be found in a limited number of standard sizes. You may have to adjust your choice of gemstone to match the cup. The other consideration is that pre-made cups often have fairly low side walls. While these are fine for low-dome stones, they're not dependable for stones with steep side walls.

Lastly before setting, check the fit of your gemstone in the cup, particularly around the bottom. The bottom corners of a stamped cup are much more rounded than a bezel you would fabricate yourself. This causes a problem with stones that have a sharp edge around the bottom. Burnishing the bezel over one of these stones will place a lot of stress on the stone and may cause it to crack. To avoid this, I round off the bottom edge of the stone with a diamond file (or use sandpaper on soft stones).



Learn New Skills with Brad's "How To Do It" Books

\*\*Amazon.com/author/bradfordsmith\*\*

Amazon.com/author/bradfordsmith\*

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## **Rock Talk Funny Papers**





When I find another cool rock to take home.



I'm not always collecting rocks sometimes I'm sleeping

### Ten things I want in my life

- 1. Rocks
- 2. More rocks
- 3. Friends with rocks
- 4. A big house for all of my rocks
- 5. Money for rocks
- 6. Rocks
- 7. A partner who is ok with rocks
- 8. A big car to fit my rocks
- 9. A "rock room" for my rocks
- 10. Rocks



orite by PlasticBeachComic











#### From The Editor

#### Hello to all Withlacoochee Rockhounds

It is I, your friendly neighborhood editor again.

If you missed our July 2023 meeting, you missed the Silent Auction.

Through items donated by club members for the auction, the club raised funds to be used for more club activities. And, club members who won the bidding on an item, left with stones, tools, books or other items. Fun was had by all.

Do NOT miss this month's meeting. Club Board member Leslie Newberry will be giving a presentation of meteorites and other space rocks. Sounds like it will be out of this world!

If you would like to place a business card ad in the newsletter, please feel free to contact me, and we'll get you added to the next available issue.

Additionally, if any of you have not received your newsletter or are not receiving my e-mail blasts (meetings, rock sales, etc.), *please* check your spam folder. If you are still are not receiving them, please contact me, and let's make sure I have your correct e-mail address. I have a few of you who unsubscribed from the mailings. I cannot add you back to the list. You have to subscribe to get back on the list. It's a permissions thing.

Our Board would like our members to come up with suggestions for programs to be presented at our monthly meetings. What would you like to see? What would you like to learn? What would you like to know? Is there something you'd like to teach or present? You can help our club expand its educational repertoire. We'd love to hear from you all.

Contact any Board member or bring your written suggestions to a meeting.

Rock On!!!

Club Phone Number - 352.587.2714

#### Warning to Withlacoochee Rockhound Members

During the last several months, illicit requests have been sent to members of various clubs in the US, including the Withlacoochee Rockhounds, asking members to purchase gift cards that would be used as donations to various organizations.

These are **SCAMS**.

Be advised that our club has never and will never ask members to buy gift cards or provide any form of monitary funds to anyone or any organization by phone call, email, or any other method of communication.

# **Rockhounds Advertisers**





















#### **Your Business Card Size Ad in Rock Talk**

The cost for non-club members to advertise their businesses in

Rock Talk is \$10.00 per month.

Contact Michael Steverson to set up an ad in both the newsletter and
the club website. It will benefit both
your business and our club.

If your ad has a web address, or Etsy shop address, I have linked to it.

**Advertisers Are Needed** 

Please help us find advertisers for the Rock Talk and our website.

The monthly income from these ads is beneficial to the club.

Both the Rock Talk and our website have more exposure than only club members.

Contact club treasurer Janet Wheeler: <a href="mailto:ceecgirl@tampabay.rr.com">ceecgirl@tampabay.rr.com</a> or send to:

Withlacoochee Rockhounds
PO Box 5634 Spring Hill, FL 34611-5634

# Withlacoochee Rockhounds

Membership Form 2023

Annual [	Dues: Individual	member, \$35.00.	Under 18 years of age, \$5.00
	Check if returning member	Please Print Clea	Check if current member with change of information Check if under 18
Last name	18	First Name	
Street Address			
City	13/	5	State ZIP
Phone Number	· (s)		
Email address:	15		
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2022